

**IDENTIFYING THE MOST SUITABLE LOCATION TO BUILD
THERMOWASTE SYSTEM IN PERAK TENGAH**

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ABSTRACT

Identifying The Most Suitable Location to Build Thermowaste System in Perak Tengah

This paper examines the waste management problem in Perak for the past few years. During this time, the problem has seen a significant rise and there are no signs of it depleting. With that in mind, this project aims to overcome this problem by providing a solution that would not only reduce the waste available but also assist in managing it more effectively in the future. After collecting the necessary data for this project, a lot of research was needed to properly analyse the area of interest. By conducting an excessive amount of research, this project will showcase the results of a site suitability analysis towards the placement of a new thermowaste system by integrating criterions from various studies and making use of the tools provided in ArcGIS Pro. By utilizing these tools, this project would be able to provide a variety of maps that show the significance of these tools. At the end of this project, a map of the results for the site suitability analysis using all the elements needed for a proper map layout. This project shows the most suitable areas to place a thermowaste system in Perak Tengah. This is especially evident in areas further away from water bodies and community areas.

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Solid waste management in Malaysia has been a problem in the country for decades now. This issue has only risen and has not seen a depletion in numbers. This is due to the fact that Malaysia relies on landfills to dispose of the waste, which is not the best option for the environment. This is because most of the waste is disposed of in landfill sites that take ages to break down, causing a problem for future generations. Not only that, but it can also release toxins and leachate, which is water that has been soaked into the solid wastes that can be the main source of pollution. The government of Perak has realized this matter and took action by shutting down most of the landfill operations in Perak, but this has only led to an entirely different problem. The increasing number of populations in Perak became the main factor in the rise of solid waste in the state. The sudden rise of solid waste made it impossible for it to be handled by the remaining landfill organizations that are still in operation.

Instead of increasing the number of landfills in Perak, finding other more effective solutions is necessary. Therefore, the thermowaste system has been recognized as one of the options that can be used in managing solid waste. Implementing the process of limpulacion, which is when the waste is cleaned